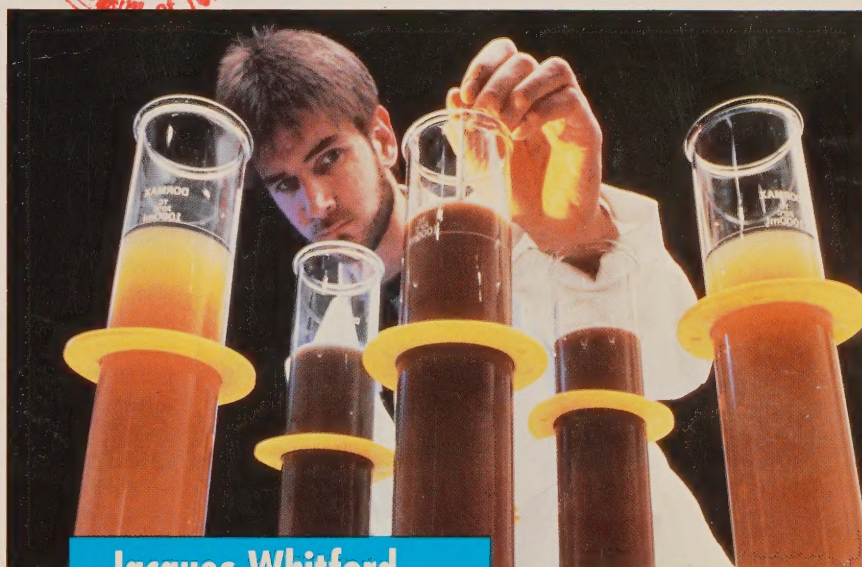
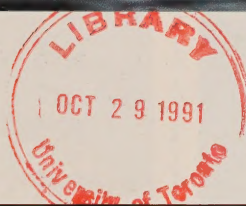


October, 1991
Nova Scotia region

Government
Publications



**Coastal
Adventures,
Tangier**



**Jacques Whitford
and Associates Ltd.,
Halifax**

INSIDE

ACOA celebrates Science and Technology Week, October 18 - 27, and
Small Business Week, October 20 - 26.

A Salute to Innovations and Entrepreneurship.



Atlantic Canada
Opportunities Agency

Vice-President's Notebook



Wynne Potter, Vice-President
ACOA Nova Scotia

In this issue of RAPPORT, our celebration of innovation and entrepreneurship, it is fitting that we profile the great mind of Leonardo Da Vinci.

Da Vinci. The world pauses and thinks of his wondrous masterpieces, *The Last Supper* and *The Mona Lisa*. What many people do not realize, however, is that Da Vinci also possessed both the fertile mind of the scientist and the curiosity and drive of the entrepreneur. He makes a fitting symbol for this issue of RAPPORT which is dedicated to those Nova Scotians who are making great contributions in our time.

Da Vinci lived in an age of discovery. Many people are saying that we are just now entering a new age of discovery. Perhaps this is what we should contemplate during Science and Technology Week, which takes place this year from October 18 - 27. The quality of life we enjoy today was made possible only through the perseverance of scientists, researchers and developers who spent years, in many cases, to perfect a particular technology. We can't rest on our laurels now, because our needs as a society are evolving and technology must change to keep pace. We must also keep pace with our neighbors worldwide in what is increasingly becoming a global marketplace of ideas and innovation. It is my hope that Canada, and specifically Nova Scotia, will play a leading role in the new age of discovery as we turn our attention, with enthusiasm, to the research and development of new technologies.

Not only was Leonardo Da Vinci a scientist, he was a man of ideas and goals. In his lifetime he invented, among other things, the modern day tank, a flying machine, the first propeller, swing bridges, missiles and the odometer. He planned and implemented plans for urban development and studied astronomy and anatomy. A fertile mind indeed. The mark of the true entrepreneur. An entrepreneur is a special person, one who has a vision, the belief that it will succeed, and the energy and the drive to see it through. During Small Business Week, October 20 - 26, we at ACOA salute the aspirations of Nova Scotia's entrepreneurs. As the creators of our small businesses, they are the driving force in our economy.

ACOA applauds the innovation and energy which many individuals possess to further Nova Scotia's economic power through entrepreneurial and scientific pursuits. It is the dynamism of a people that will surely lead to their success. And ACOA is proud to be a part of it.

SHAD VALLEY: SUMMER SCHOOL WITH A TWIST

Enthusiasm runs high at this summer school, no matter how good the weather is at the beach. The group of high school students assembled for a lecture on a humid, sunny July morning are anticipating a discussion on "finite element analysis". Other mornings see them participating in lectures on engineering, mathematics, business and ethics.

These students are the bright lights, the chosen few who attended the Shad Valley Program at Acadia University, a four-week nationwide program aimed at instilling a greater awareness of technology and entrepreneurship and how the two can be combined.

The participants, known as "Shads", spend mornings attending lectures and afternoons participating in seminars on such things as financial planning, computer programming, environmental science and video editing. No rest for the weary as guest speakers are even scheduled for evening lectures. Only on weekends do Shads take well deserved breaks.

Acceptance into the program is very competitive. Students are selected according to creativity, intelligence, initiative and interpersonal skills. They are what many would refer to as "high achievers" — excellent academic records, involvement in a variety of extracurricular activities and determined and ambitious in all aspects of their lives.

"The best thing about the program is the people you are with and what you learn from

them," says David Brannen, now a grade twelve student in Barrington Passage. "They're all people like you from all across Canada. You can relate to the people here because we'd all like something successful to happen to us someday."

Brannen, along with Jennifer Hiltz of Windsor and Justin Jagger of Fall River, were sponsored by ACOA.

Lois Stevenson, Director of Entrepreneurship for ACOA, was one of the guest speakers for this year's Acadia Shad Valley. She spoke to the students about the value of entrepreneurship and the opportunities it provides.

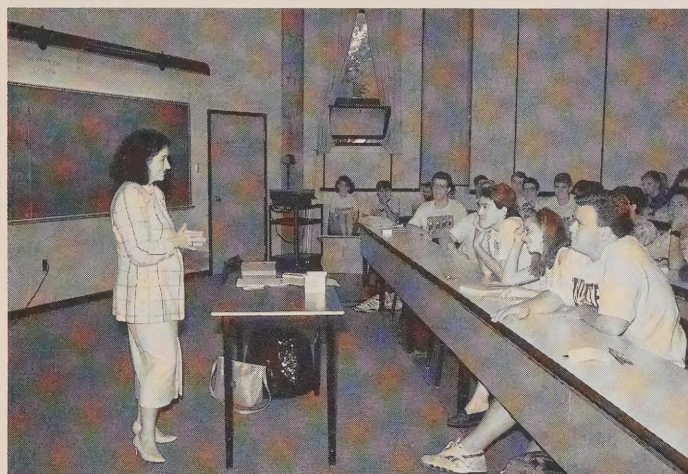
"It is important to help young people identify their potential and create opportunities here in Atlantic Canada. That's what Shad Valley is all about," Stevenson told the students. "Every country in the world now is looking at ways of making their people more entrepreneurial. Each of you has the potential to be creating and growing businesses here in Atlantic Canada one day."

The Shad Valley program was inaugurated in 1981. Acadia Program Director Vincent Leung is a strong believer in helping bright students realize their full potential and pursue careers in science, technology and entrepreneurship. He has worked with dozens of students over the past years and has seen many promising entrepreneurs. "Most of them consider becoming an entrepreneur someday a real possibility," he says. "And most of them have what it takes to succeed."

Part of the student's exposure to technology and entrepreneurship involves a group project to invent, design and develop an entirely new product. Each group must build a prototype of the product and prepare plans for market research, advertising, cost analysis, production costs and plant facilities.

To make the inventing

The time spent at Shad Valley provides every individual with their own specific benefits and rewards. For some it's the exposure to new ideas or opportunities in business, entrepreneurship, science or technology. For others it's the chance to focus on areas they've always had an interest in such as science or inventing. All seem to enjoy the opportunity to



Lois Stevenson, ACOA'S Director of Entrepreneurship, discusses entrepreneurship with Shad Valley Students in Wolfville.

project even more of a challenge it is done without the guidance of staff and only during free time — approximately two hours a day. The projects are judged by a panel of entrepreneurs, business people and engineers and a prize is awarded for the best new product.

In most cases the four week program is followed by a four to six week paid work term in the "real world" of business and industry. In this phase, students are exposed to challenging work assignments and experience firsthand the practical aspects of technology and entrepreneurship.

spend time with other young people with similar interests and capabilities. And the staff enjoy the contribution they make to the future of tomorrow's leaders in science and business.

"Shad Valley is a great experience," says David Brannen, "One I'll look back on with pride and accomplishment."

"I got involved with Shad Valley for everything it stands for." Says Lois Stevenson. "Entrepreneurship, the development of self satisfying careers, becoming all that one has the potential to be."

-Written by
Elizabeth MacDonald.

A STRENGTHENING OF BONDS: *Women Entrepreneurs*

Many women dream of owning their own business. And many have the entrepreneurial spirit to chart their own course. When successful, and a large number are, they provide themselves with a rewarding employment alternative, and others in the Atlantic Region, with spin-off employment.

Women entrepreneurs are a strong contributing force in the economy. During the past several years the network that supports women in business has also been strengthened.

A number of agencies and organizations whose mandate it is to provide support programs and services to meet the needs of women entrepreneurs and women aspiring to business ownership have joined forces to organize the first ever **Atlantic Convention for Women Entrepreneurs**. The convention will take place October 18-20, 1991 in Moncton, New Brunswick.

"We have a number of goals for the convention," says Lois Stevenson, Director of Entrepreneurship for ACOA and a member of the steering committee for the convention, "Our primary goal is to promote the development of the entrepreneurial skills. We want to help them acquire the knowledge and attitudes necessary for success and to become aware of the many resources available to them."

Stevenson says another important goal of the convention is to create more public awareness of women as entrepreneurs. "The public and media should be more knowledgeable of what women entrepreneurs are doing," she says. "We will be doing a number of profiles of

outstanding women who are inspiring as role models for others in business and industry."

During the convention, an exhibition area will be provided where organizations and women entrepreneurs from the region can showcase their products and services to the women entrepreneurs and provide information.

Because the convention's message is the promotion of the entrepreneurial spirit in women, the convention will be used as the forum to stage the Inauguration of the Atlantic Hall of Fame for Women Entrepreneurs. This celebration will honor four women from the Atlantic Region who were early entrepreneurs, pioneering their own businesses prior to 1960.

"Recognizing the strength and determination which it must have taken for these women to achieve in an unfriendly entrepreneurial climate gives each of us the knowledge that we too can do it," says Lois Stevenson. "We must realize that there will be problems, just as they faced. But they can be overcome."

Stevenson sees the convention not only as a valuable, practical learning experience but also as an opportunity to meet and network with other women entrepreneurs.

"A lot of women's businesses are young right now," says Stevenson, "but with support they are growing. Entrepreneurs can learn a lot from each other and women share certain bonds. We are just encouraging the sharing of experiences, the building of the network and strengthening of those bonds."

For registration or information call
Dina Lavoie: (506) 858-4510

RAPPORT

ACOA Celebrates Small Business Week

October 20 to 26 is Small Business Week in Canada. The Atlantic Canada Opportunities Agency recognizes that small business is the engine of

economic growth in the region. In fact, approximately 92 percent of all businesses in this province can be described as 'small' business.

The theme of ACOA's activities for this year's Small Business Week is "Exploring the New World of Entrepreneurship" — a theme

suggesting adventure, lifestyle and discovery.

Entrepreneurial spirit seems to come naturally to Atlantic Canadians.

Special Knives From Pictou

A \$69,700 expansion of its knife manufacturing business has allowed Grohmann Knives Ltd., Pictou, to purchase specialized equipment to manufacture two new product lines: snow knives used by the Department of National Defence in their polar exercises and knives used for trimming and shaping Christmas trees.

ACOA provided \$13,900 toward the update of the plant.

Manager Michael Babinec Jr. says things are going according to plan since the expansion. "We have successfully branched out, our sales are up and we were able to hire two more employees," he says, "We're happy to be keeping busy."



Michael Babinec Jr., (left) Michael Babinec Sr. (right) of Grohmann Knives, Pictou.

A Real "Cottage" Industry

Since Maureen and Gordon Matthews' grand opening in June, 1990, their Four Seasons Retreat in Economy has been the picture of success.

The facility has six cottages overlooking Cobequid Bay in a completely natural, unspoiled setting. "We're surrounded by trees, with a beautiful southern exposure," says Maureen Matthews. "We have a beach, clam-digging,

cross-country skiing trails for winter. We even have a resident moose and deer."

This year, the Matthews had a July occupancy rate of 76% and an August rate of 84%.

ACOA contributed 30% funding to the project. "Without their help we wouldn't have been able to do this. We're pleased to be a success story."



Maureen Matthews, Four Seasons Retreat, Economy.

Adventures In Kayaking

For Scott Cunningham, kayaking is not only a sport, it is a career. As owner of Coastal Adventures in Tangier, Cunningham leads vacationers on sea kayaking excursions. These trips afford a spectacular view of Nova Scotia's biggest tourist attraction—its coastline.

Cunningham recently received \$8,257 from ACOA to purchase five fully-equipped kayaks and expand his facilities. Prior to receiving the assistance he would have to forgo rental and lessons revenue because he required all of his kayaks for excursions.



Coastal Adventures, Tangier.

Small businesses led the economic recovery from the 1981/1982 recession through job creation and they're helping us through the most

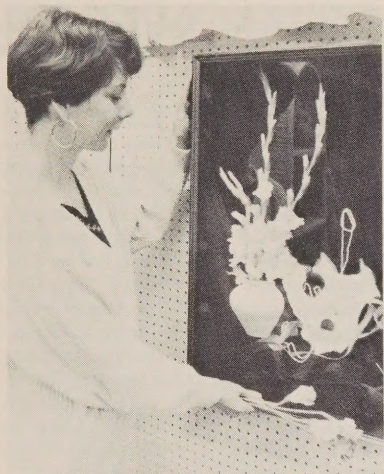
recent downturn.

Many Atlantic Canadians turn to initiating their own businesses as an employment alternative. The result is

growth in the economy and increased innovation, efficiency and competitiveness.

ACOA recognizes and salutes the

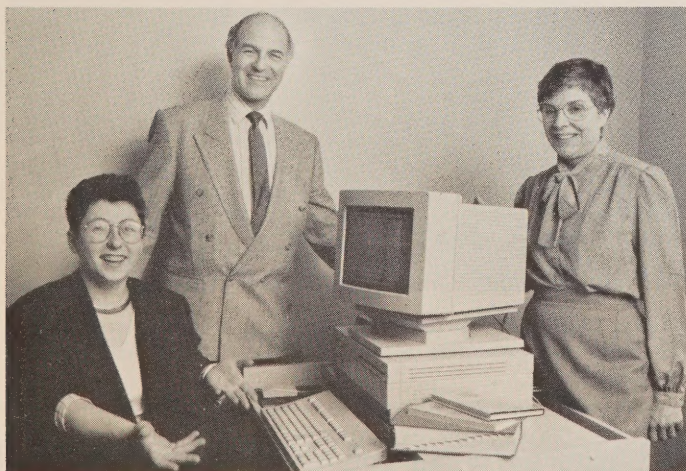
achievements of all Atlantic Canadian entrepreneurs for their spirit, courage and dedication to the success of their business ventures.



Robin's Floral House owner Nancy Thompson displays some of her products.



James Shand, Vice-President, Life Line Software Ltd., Bible Hill.



From left to right, Juanita Swinamer, Lorne Rozovsky and President Fay Rozosky of Lefar Health Associates.

Successful Business Blooms in Yarmouth

Yarmouth entrepreneur Nancy Thompson's year has been "somewhat of a struggle, but a success". Thompson, a well-known florist and designer, is a manufacturer and marketer of freeze-dried flowers. Restaurants, the hospitality industry and interior designers are the market for these long lasting buds.

Says Thompson, "Roses,

irises and daffodils which have previously only been enjoyed in their fresh form can now be enjoyed year-round." Of her business, Robin's Floral House, Nancy says it's been nine months since production has started. "The difficult part is over," she says. "We're seeing a good response to the product now."

Computerized Chicken Coops

A computerized environmental control system for poultry barns which will increase egg production for the same amount of feed has been developed by Life Line Software Limited, Bible Hill.

The FARMAX system monitors and records the temperature, ammonia level, and humidity level in barns.

James Shand, Vice-Presi-

dent of Life Line, says farmers find it difficult to measure ammonia or humidity levels in barns. Every five minutes, 24 hours a day, FARMAX senses and analyzes environmental conditions.

Says Shand, "Keeping conditions at a good level for the birds means they will be happier, and happier birds are more productive."

Lefar To Focus On Marketing

Lefar Health Associates Ltd., a health management consulting firm and risk management consultancy, has spent the last 12 months developing a desktop publishing system which allows them to efficiently publish RRM Report, a risk management newsletter for health professionals.

Juanita Swinamer, Office Administrator for LEFAR,

says, "Our intention now is to increase subscribers to the newsletter. We have almost 350 now in six countries and we're putting together a direct mail campaign to further expand our list."

Swinamer says LEFAR will concentrate on marketing in the next year. "ACOA helped us with our marketing study. Our next step is to implement some the recommendations."

RAPPORT

DA VINCI EXHIBIT SPARKS IMAGINATION



Leonardo Da Vinci -- "One Of The World's Great Thinkers".

Leonardo Da Vinci is known to the world as the master who created the Mona Lisa and the Last Supper. Yet, some of his greatest achievements and most creative efforts came from his unending curiosity about the world around him.

A travelling exhibition of 26 models, now on display at the Discovery Centre in Scotia Square, is designed to provide a glimpse into the mind of Da Vinci the engineer. Working models made from his sketches illustrate not only how well-developed his ideas were but also how much one person can achieve when equipped with a fruitful mind.

The models were constructed in 1948 by Dr. Roberto A. Guatelli according to Leonardo's scientific and technical drawings.

Leonardo's greatest passion was observing nature at work and trying to apply natural laws to practical invention. Where others saw only a bewildering diversity, he saw similarities beneath the surface. He analyzed everything in terms of function.

Derek Bower, a facilitator at the Discovery Centre, calls Leonardo's advanced thinking 'amazing'. "He was able to draw birds in flight. He figured out why the wind blew. And this was over five hundred years ago."

Da Vinci came close to mastering the whole range of human knowledge. He lived during an age of discovery, just as our own is, and he shared with the long line of the world's great thinkers an adventurous spirit of exploration and the dream of a limitless future for the human race.

"Da Vinci believed that the more you had on your mind the better your mind served you," says Bower. "He was hundreds of years ahead of his time."

The Da Vinci exhibit can be seen at the **Discovery Centre until January 1992**. It is the hope of the Discovery Centre that the exhibition will be a spur to creative curiosity — the quality that leads us to ask questions about the world, to dream dreams for its progress and to search for answers to turn the dreams into reality.

ACTIVE YEAR FOR CAD/CAM TECHNOLOGY

CAD/CAM technology sounds like it belongs more in science fiction novels than at the drafting tables of Nova Scotia engineers.

Computer-aided design (CAD) and computer-aided manufacturing (CAM) take the engineer's design from the drafting stage (on computer) directly to a computer that controls manufacturing.

For instance, an engineer can make changes in dimension and shape until the design of an object is complete. Then the computer can be fed information about what kinds of materials are to be used to make the object. The engineer can conduct tests for strength and efficiency on the computer, allowing changes to be made in the design before costly production begins. The information is then transferred to a manufacturing machine with cutting tools. With the appropriate materials provided, the machine crafts a prototype of the engineer's design.

If it sounds unbelievable, consider that the same technology has been used in the automobile industry for years. In fact, chances are every modern device you see has been designed using CAD technology and perhaps manufactured using CAM technology.

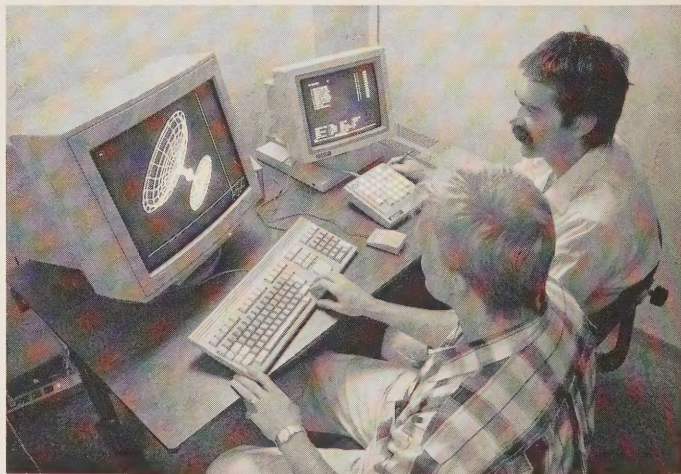
The technology is relatively new to Nova Scotia. Last year the Nova Scotia Research Foundation, the Technical University of Nova

Scotia (TUNS), the CAD/CAM facility at the University College of Cape Breton and the Applied Microelectronics Institute in Halifax received ACOA assistance to help expand their CAD/CAM technologies. All four centres are committed to helping companies become more competitive by adopting CAD/CAM and related technologies.

"Almost everything is designed by CAD technology today," says Dr. Aftab Mufti, Director of the CAD/CAM Centre at TUNS. "CAD gives manufacturers an enormous advantage in turning an idea into a marketable concept. With CAD/CAM a company can save time designing, testing and manufacturing."

Over the past year, activity has been intense at the TUNS CAD/CAM Centre. Leigh Beauchamp, the Centre's industry liaison says, "We've been busy. Our CAD training courses are filled with industry personnel. We have trained 400 people in AutoCad. And we are offering a free advisory service to anyone who takes a course from us so we are able to help them once they get back on the job."

The facility has recently opened a plastics division and Beauchamp says they are working on a mold for plastic



Bill Bugg, Coordinator of the CAD-CAM Centre at the University College of Cape Breton, demonstrates the capabilities of computer aided design and manufacturing.

SCIENCE AND TECHNOLOGY WEEK - A CEL

food containers using CAD for the Canadian Institute for Fisheries Technology. "These replicas of food containers will be used for heat transfer testing," says Beauchamp. "We expect they will lead to improvements in microwavable containers."

Beauchamp says they are also working with a Nova Scotian

entrepreneur in the refinement of his design for the Padpro Lock Protector.

The plastics division has formed a Board of Directors and is looking forward to joint projects in research and development which will advance Nova Scotia's standing in the plastics industry.

numerically on the IRIS computer — providing the boat designer with relatively quick, and inexpensive, feedback on the design.

"Boats have generally been designed by tradition, a trial and error method of design and construction," says Lacy. "Not to knock that, because a lot of great designs have evolved through trial and error, but we want to lead the local boatbuilding and design industry. We can develop a new design locally. We can test it ourselves and hopefully generate more naval architects that are up to 21st century levels."

The aspect of the Centre which

employment for NSCAD students," says Fred McFadzen, Director of the Centre.

McFadzen is talking about NSCAD's own IRIS computers and other computer equipment in the facility, also purchased with assistance from ACOA. The high-tech hardware might seem a little out of place amidst the painting and ceramic studios, but it represents evolution within the school.

The range of student projects is impressive. Lisa Noble, a design student, completed a 10-second animated introduction for a Mount Saint Vincent educational television series. Greg Smith, a

TUNS AND NSCAD STUDENTS TAKE TO TECHNOLOGY

In a quiet, computer-filled office in South End Halifax, the power and complexity of ocean-going ships and their behavior in sea conditions is being researched and contemplated by students and scientists.

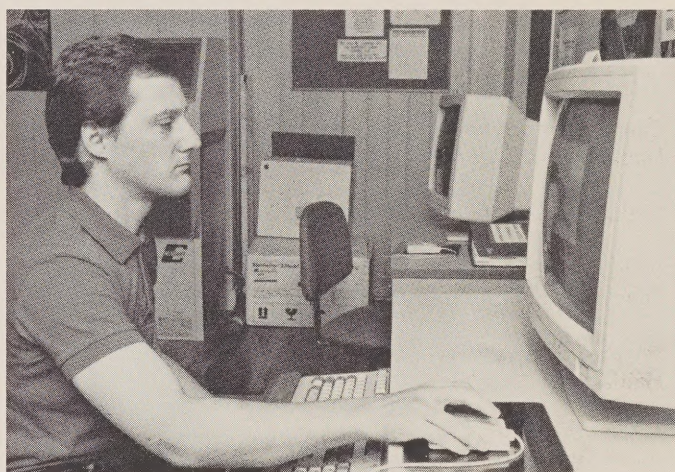
A little more than a year ago, ACOA assisted the Technical University of Nova Scotia (TUNS) with the establishment of the Centre for Marine Vessel Design.

The centre uses IRIS computer workstations — capable of producing powerful graphics for advanced computer analysis — to conduct hull design research and analysis.

Gordon Lacy, Director of the Centre, says the Centre can create a three dimensional model of a ship's hull on-screen and then, using a computer program, analyze how a particular hull design behaves in different wave conditions. The purpose is to help naval architects evaluate a ship's design before construction begins.

The Centre has the facilities to evaluate designs numerically, with the computer, and experimentally with a 100-foot towing tank.

Designs for smaller boats, under 45 feet, can be tested



A Student at the Nova Scotia College of Art and Design, Halifax, uses one of the College's new high-tech IRIS computers.

is most marketable to local boatbuilders is the 100-foot model towing tank. "We make a model of the hull and experimentally determine its seafaring capabilities. Then our engineers modify the hull design to optimize its efficiency," say Lacy.

The Centre provides the university's naval architecture students with the latest technology and prepares them with the knowledge to compete on an international scale with others who have been exposed to this technology.

Art Goes High-Tech

Several blocks away from TUNS, students in the fine arts and design programs at the Nova Scotia College of Art and Design (NSCAD) are learning how to incorporate advanced computer technology and software into their curriculum.

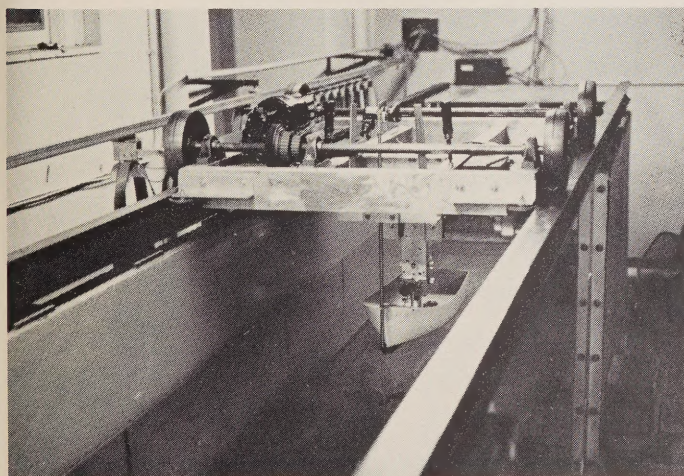
"The equipment and software creates new opportunities for

fine arts student, prepared a five-minute animated piece about a stapler that starts attacking other office items on top of a desk.

McFadzen says students are hireable as computer animators when they leave the college. "They really take to the technology. Students can't wait to get in and use the software. In fact, there is such an interest in the program that we can't fit everyone in."

McFadzen expects that within the next few years NSCAD will have to expand their training facilities. "Demand for people with this kind of expertise is increasing," he says.

Michael LeBlanc, a faculty member at NSCAD says, "The students are so intense about making it right, about making it good, I don't have to motivate them. I just show them how the technology works and they generate their own enthusiasm."



Testing a model of a 35' Cape Island inshore fishing vessel at the Centre for Marine Vessel Design at TUNS.

ATION OF INNOVATION OCTOBER 18 - 27

Calendar of Events

Science & Technology Awareness Week launch & Discovery Centre Birthday Celebration, Discovery Centre, Scotia Square, Halifax, Friday, Oct. 18th, 11 A.M.

'Leonardo Da Vinci Exhibit', Discovery Centre, Scotia Square Halifax. - Until January 1992.

'Travelling Discovery Centre', Mayflower Mall, Sydney, Oct. 15 - 19.

Canadian Scholarships Awards, Dalhousie University, Halifax, Oct. 16.

'Dal Days', Dalhousie University, Halifax, Oct. 18th & 19th.

Imaging Science: Science Fiction Literature and Science, Panel Discussion, Dalhousie University, Halifax, Oct. 24.

Science Olympics, Technical University of Nova Scotia, Halifax, Oct. 27 & 28.

"Changing Profile of Engineering", Lecture by Monique Frize, Chair of Woman and Engineering, University New Brunswick, Technical University of Nova Scotia, Halifax, Oct. 28th, 8 PM.

'Girls Inventors Conference', Mount Saint Vincent University, Halifax, Oct. 21 - 22.

'Women and Science', reception and films, Mount Saint Vincent University, Halifax, Oct. 24th.

'Research', a panel discussion, Seton Academic Centre, Mount Saint Vincent University, Halifax, Oct. 21st, 7:30 PM.

'The Brain's Image', Symposium, Acadia University, Wolfville, October 19th.

'Reefs, Fossils, Skeletons & Shining Light', exhibit, Nova Scotia Museum, Halifax.

ACOA Nova Scotia Account Manager Office Hours: in Truro, October 23.

in Berwick, October 30.

in Annapolis Royal, November 6

in Windsor, November 13.

in Parrsboro, November 27.

Women's Business Conference in Moncton Oct. 18 -20

Small Business Week, October 21 -26.

CENTRE FOR WOMEN IN BUSINESS A STEP FORWARD

The formation of a Centre billed as a "step forward in helping women in Atlantic Canada achieve their business and entrepreneurial goals" was announced recently. The Centre, which received a \$569,259 contribution from ACOA will be located at Mount Saint Vincent University and is slated to officially open in December.

The Centre for Women in Business will provide advice and skill training to potential and current entrepreneurs; establish a network for women in business, the academic community and the general public; promote entrepreneurship to women; and undertake research on women as entrepreneurs.

The Centre's services will also be available to women throughout Atlantic Canada through non-credit, small business courses via Mount Saint Vincent's distance University Education via Television (DUET) program.

"The Mount is a very

appropriate and logical location for a Centre such as this," says Ann MacGillivray, Chair of the University's Department of Business Administration. "We're dedicated to the education of women. We're hoping that the Centre will tie everything together for women entrepreneurs and streamline their efforts for gathering information. At the same time, it will bring the subject of women entrepreneurs to the forefront of public awareness."

The Centre will be managed by an Executive Director and staffed by students from the Mount's Cooperative Education program. A Business Advisory Board will be formed with members from the business community to ensure that the academic and business communities are represented equally in the activities of the Centre.

For further information on upcoming programs and/or courses to be offered by the Centre, contact Ann MacGillivray at 443-4450.

RAPPORT is a publication of ACOA Nova Scotia and Enterprise Cape Breton.

FEEDBACK

Please send your comments and suggestions to the Editor of RAPPORT, Communications Branch ACOA Nova Scotia

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